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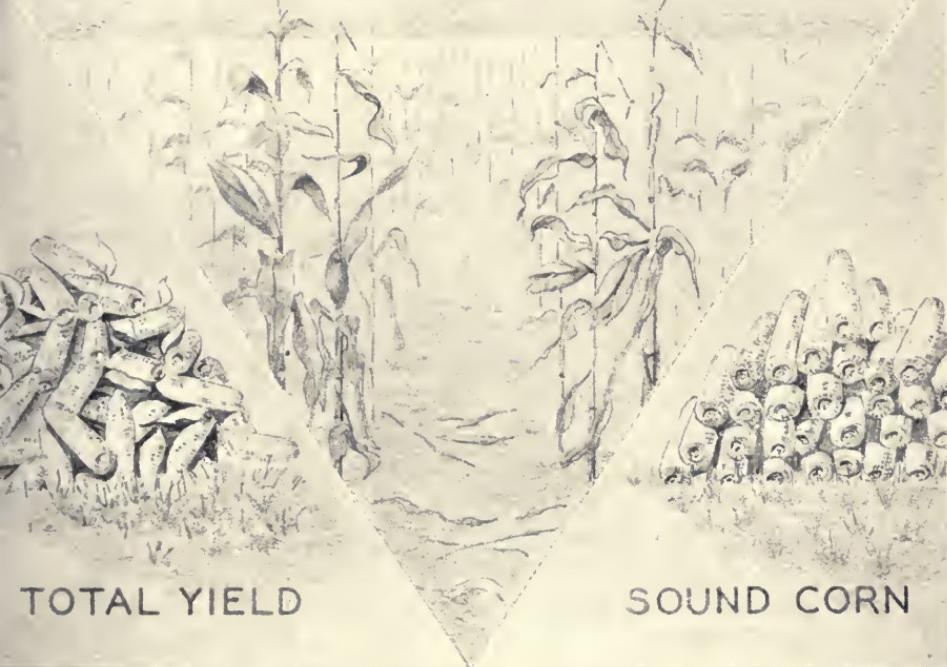
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Illinois Corn Performance Tests Results for 1934

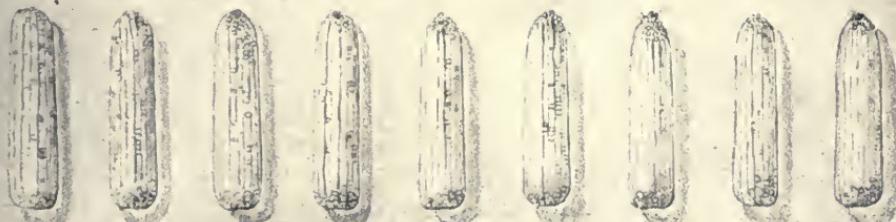
LODGING RESISTANCE



TOTAL YIELD

SOUND CORN

QUALITY



UNIVERSITY OF ILLINOIS
AGRICULTURAL EXPERIMENT STATION
BULLETIN 411

IN COOPERATION WITH THE DIVISION OF CEREAL CROPS AND DISEASES, BUREAU OF PLANT INDUSTRY, U.S. DEPARTMENT OF AGRICULTURE, AND THE ILLINOIS STATE NATURAL HISTORY SURVEY

THE GREAT NEED in all sections of Illinois is for corn that not only is more resistant to lodging and capable of higher yields, but is of better quality, more resistant to disease, to drouth, cold, and insect pests, and that will use most advantageously the available supplies of plant nutrients in the soil.

Obviously it is only by the active cooperation of workers interested in these different phases of corn improvement that progress can be made in the development and distribution of seed better adapted to the varying conditions obtaining in the different sections of the state. The corn performance tests reported herein are therefore part of a coordinated corn improvement program being conducted cooperatively by the Illinois Agricultural Experiment Station, the U. S. Department of Agriculture, and the Illinois State Natural History Survey.

This search for corn of better quality—corn better suited to the use to which it is to be put, whether for feeding on the farm or for commercial purposes—may be expected to lead eventually to a more intensive study of the chemical composition of both grain and stover. However, it is to some of the other basic problems that attention is at present directed.

Illinois Corn Performance Tests

Results for 1934

By G. H. DUNGAN, J. R. HOLBERT, W. J. MUMM, J. H. BIGGER,
and A. L. LANG¹

THE SECTIONS of Illinois in which corn is grown intensively and where it constitutes the most important cash crop differ widely in type and productivity of soil as well as in climatic characteristics such as rainfall, summer temperatures, and length of favorable growing season. Corn diseases also vary in severity from one part of the state to another, especially from north to south; and certain insect pests that may not exist in some sections become serious problems in others.

As a step toward finding for the different sections of Illinois the best available corn varieties and hybrids and aiding in the further development of desirable varieties and hybrids, 177 different kinds of corn were tested for yield and quality at twelve different places in the state in 1934, these twelve places being representative of the principal corn-growing districts (Fig. 1).

The location of the fields, the names of the cooperators, a brief description of the season, and indication of the intensity of second-brood chinch bug infestation, together with the average yield of all entries at a given location, are recorded in Table 1. More detailed description of the season is given on pages 58 and 59.

Numbers and Kinds of Entries in the Tests

Of the 177 different kinds of corn included on the 13 fields (12 different localities) in 1934, 45 were open-pollinated varieties and 132 were hybrids. In the accompanying tables these entries are grouped into two general classes—"Regular" and "Experimental." In the "Regular" group are placed the varieties and hybrids that may be considered to be in commercial production, 100 bushels or more of seed being available for planting in 1935, or having been available in that amount in previous years. In the "Experimental" group are included those varieties and hybrids of which only small amounts of seed have been produced for planting in 1935.

In order to have some measure of the general level of performance

¹G. H. DUNGAN, Associate Chief in Crop Production, Illinois Agricultural Experiment Station; J. R. HOLBERT, Senior Agronomist, U. S. Department of Agriculture; W. J. MUMM, Associate in Plant Breeding, Illinois Agricultural Experiment Station; J. H. BIGGER, Field Entomologist, Illinois State Natural History Survey; and A. L. LANG, Assistant Chief in Soil Experiment Fields, Illinois Agricultural Experiment Station.

of the corn ordinarily grown in the community, composite samples of local seed of open-pollinated corn were obtained for some localities. At three localities these samples were furnished by the agricul-

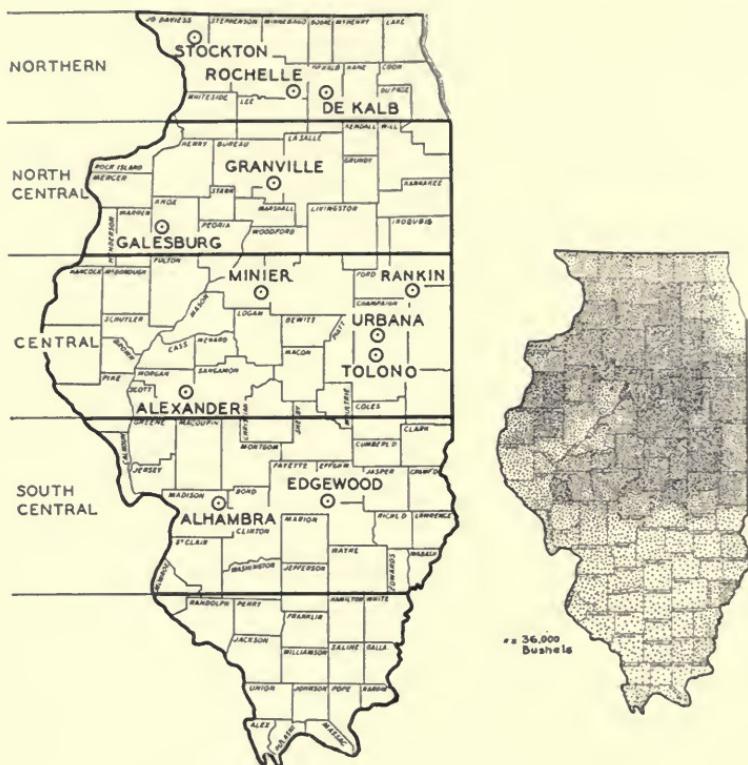


FIG. 1.—LOCATION OF 1934 TEST FIELDS, AND AVERAGE CORN YIELDS, 1928-1932

(Production map prepared by Division of Agricultural Statistics, Illinois State Department of Agriculture cooperating with the U. S. Department of Agriculture.)

tural department of the local high school, 12 to 30 boys contributing a half pint of shelled corn from their fathers' seed supply. At two places a composite sample was obtained by collecting seed from about 20 planter boxes the day before the tests were planted.

Planting and Arrangement of Entries

The experimental trials on the farms of the cooperators were located in fields larger than that required for the test, in order that the corn in the test might be entirely surrounded by other corn, and also in order that the test might be conducted under average conditions

TABLE 1.—ILLINOIS COOPERATIVE CORN PERFORMANCE TESTS, 1934: GENERAL INFORMATION^a

Location of field	County	Cooperator	Number of entries in test	Date planted	Kind of season	Date harvested	Average total yield	Average yield sound corn
Stockton Rochelle	Jo Daviess Ogle	Homer Curtiss G. A. Lazier and Son	21 31	May 11 May 10	Generally favorable Very dry; hot winds; light chinch bug infestation	Dec. 4 Dec. 3	84.2 45.9	83.0 33.3
DeKalb	DeKalb	Ill. Agr. Exp. Sta., Agronomy	20	May 16	Very dry; hot winds	Nov. 30	29.6	17.6
Galesburg	Knox	John Sullivan	36	May 4	Dry; early heavy chinch bug infestation	Nov. 19	55.8	38.4
Granville	Putnam	Ben Moews	40	May 12	Very dry; early heavy chinch bug infestation	Nov. 28	34.4	14.9
Minier	Tazewell	Ray Kettering	36	May 8	Dry; late light chinch bug infestation	Nov. 23	76.6	68.7
Rankin	Vermilion	Ill. Agr. Exp. Sta., Agricultural Economics	33	May 7	Very dry; light chinch bug infestation	Nov. 7	26.2	....
Urbana S. W. R.	Champaign	Ill. Agr. Exp. Sta., Agronomy	36	May 14	Dry; late heavy chinch bug infestation	Nov. 6	65.1	52.6
Urbana S. C. R.	Champaign	Ill. Agr. Exp. Sta., Agronomy	36	May 15	Dry; early heavy chinch bug infestation	Dec. 12	52.3	43.1
Tolono	Champaign	Charles Meharry	40	May 9	Dry; late light chinch bug infestation	Dec. 10	55.0	40.7
Alexander	Morgan	H. D. Kamm	25	May 8	Very dry; hot winds; light chinch bug infestation	Dec. 5	18.3	8.0
Edgewood	Effingham	F. V. Wilson and Son	11	May 3	Early moderate chinch bug infestation	Oct. 16	33.7	....
Alhambra	Madison	Ill. Agr. Exp. Sta., Agronomy	15	May 2	Very dry; light chinch bug infestation	Nov. 20	13.2	....

^aFor the names and addresses of those who contributed seed for the 1934 Corn Performance Tests, see pages 63 and 64.

encountered on the farm. Planting was done by hand on the day the rest of the field was planted. The rows were made to join with those of the adjoining corn so that the cooperator could cultivate the plot along with the corn in the rest of the field.

Each entry (variety or hybrid) occupied a space 12 hills long and two rows wide. In order to obtain a good distribution over the test field and so insure comparable yields between the different entries, each entry was assigned a number and distributed in a random manner in each of the 10 replications. The planting plan used at the Alexander field is shown in Fig. 2. Plans similar to this one were used on the other fields, with the exception of the smaller fields at Edgewood and Alhambra, which were planted in strips with frequent checks.

S-I	R-1	R-2
14 17 3 10 23 13 20 9 11 16 8 12 1 5 24 15 21 7 16 25 4 9 22 2 16 10 11 13 20 25 2 4 1 7 23 6 16 5 22 12 24 14 19 18 17 9 15 3 9 21		
S-II	R-3	R-4
2 9 20 21 1 10 24 16 5 23 3 22 4 15 9 6 14 19 16 17 25 7 11 13 12 17 7 16 15 5 24 11 19 22 3 16 10 2 8 23 8 12 4 20 21 13 6 1 28 14		
S-III	R-5	R-6
13 9 5 7 6 21 12 1 22 8 10 16 25 10 17 2 3 23 4 11 20 14 18 24 15 21 16 22 14 2 12 17 8 9 13 4 1 11 24 23 25 15 3 7 5 6 10 19 20		
S-IV	R-7	R-8
25 10 24 22 18 15 14 17 18 4 20 2 23 11 7 8 12 6 1 13 8 3 21 10 5 6 4 8 9 24 2 10 20 15 10 25 19 14 3 7 2 22 1 13 5 17 12 11 16 23		
S-V	R-9	R-10
15 4 10 11 12 25 3 6 7 2 18 14 6 21 13 24 20 5 22 10 1 9 17 19 23 12 23 19 1 3 25 14 16 13 5 20 21 8 17 15 9 8 10 8 11 26 22 2 7 4		

FIG. 2.—PLANTING PLAN SHOWING CONTROLLED RANDOM DISTRIBUTION

The plantings were in five series (S-1, etc.) with each series including two replications (R-1, etc.) of all entries. Each entry appears once and only once in each of the ten replications; it also appears only once in each vertical block of plots five plots wide by five plots long. The plots were so distributed in each replication that very rarely was an entry planted alongside the same two entries more than once in the entire experiment. Plot 15 has been blackened to make it easier to see how, by this plan, a single entry is distributed over the ten replicated plots.

An Unusual Season

The weather and other factors affecting corn in 1934 were unusual in many respects. The dry condition of the soil at planting time resulted in good stands in only the most carefully planted fields or series.

Excellent stands, however, were obtained where sufficient care was taken to plant the corn deeply enough to be surrounded by moist soil. The data on series in which there were very irregular stands and the corn was late in germinating because of too shallow planting were not included.

Shortage of moisture thruout the season resulted in stunted vegetative development. In some localities hot, dry winds at pollination time caused either barrenness or incompletely filled ears. In all localities, burning of the tassels and upper blades was rather general. This blighting effect of the heat was especially noticeable with certain entries susceptible to drouth and heat injury.

At Rochelle and DeKalb the heat and drouth injury was not complicated by heavy chinch bug infestation; and, in general, this was true also at Rankin, Alexander and Alhambra.

Second-brood chinch bug infestation was very heavy on the Granville, Galesburg, and Urbana fields; and in these fields chinch bug resistance, in addition to resistance to heat and drouth, was an important factor in determining the comparative performance rating of the different entries. In the other fields in central and southern Illinois, where injury from bugs was somewhat less, the relative performance furnishes a less dependable index of chinch bug resistance.

The average yields on the different fields, as recorded in Table 1, reflect to a considerable extent the productivity levels of these fields. Coupled with the yields of sound corn, they also serve as an index of the climatic conditions, intensity of chinch bug infestation, amount of ear worm and ear rot damage, and other disturbing factors.

Measuring the Performance of Entries

Important as yielding capacity admittedly is in the choice of the best varieties or hybrids to grow, it is not the only important consideration. A strain selected should stand up reasonably well during the normal corn-harvesting period, the ears should mature well in a normal season and have a minimum amount of rot and of weather-damaged grain.

The characteristics that have therefore been taken into consideration in an attempt to evaluate the comparative desirability of the entries in these performance tests are (1) *lodging resistance*, (2) *general quality of grain*, (3) *total yield*, and (4) *sound yield*. The average of separate ratings on each of these qualities constitutes the general performance rating for an entry and is the basis for the rank given an entry in the accompanying tables.

1. *Lodging Resistance*.—Lodging resistance was measured in the following way. Just before harvest at least two men examined each entry and estimated the percentage of plants that were erect. Whether lodging was due to broken stalks or to weak roots, it was recorded in the same way. Stalks broken above the ears were considered good stalks. The average of all the estimates made on all the replications of a given entry in a given field constituted the lodging resistance rating of that particular entry (Fig. 3).



FIG. 3.—LODGING RESISTANCE OF CORN ON TWO PLOTS IN TEST

Lodging resistance was included among other qualities in giving the entries a general performance rating. (*Left*) An open-pollinated variety with a lodging resistance rating of 30 on this particular plot and 20 as an average of all ten plots in the field. (*Right*) A promising hybrid having a lodging resistance of 90 on the plot shown and an average of 69 for all ten plots in the field. Photograph was taken December 12, 1934.

2. *Sound Corn Yield*.—In order to get as good a measure as possible of the resistance of the entries to ear rot, the corn in these tests was, for the most part, harvested late in the season. At the time of harvest all the corn from each 2-by-12-hill planting was weighed, then dumped on the ground and the ears sorted into piles of sound corn and damaged corn.

The ears classed as sound were comparatively well matured and not visibly rotted. Ears placed in the damaged pile included unmistak-

ably immature or "chaffy" ears and those visibly rotted. The ear worm damage on some ears was followed by rot of such severity that the ears were placed in the damaged class.

The rating of any given entry with respect to yield of sound corn is based on its performance in relation to that of all the other entries on the same field, the yield of sound corn from each replication of an entry being averaged and expressed as a percentage of the average yield of sound corn from all the entries on the field, including that of the farmers' composite.

3. General Quality.—Anyone who has attempted to sort ears of corn into sound and damaged classes realizes the difficulties involved

TABLE 2.—QUALITY RATING AND SOUND CORN: AVERAGE OF DATA ON TWELVE FIELDS IN ILLINOIS, 1934

Location of field	Average general quality rating	Average classed as sound (based on total yield) <i>perct.</i>
Stockton.....	85.2	98.6
Rochelle.....	64.9	72.5
DeKalb.....	50.4	59.5
Galesburg.....	55.6	68.8
Granville.....	44.4	43.3
Rankin.....	59.7	(^a)
Urbana (Southwest rotation).....	(^a)	80.8
Urbana (South-Central rotation).....	68.0	82.4
Minier.....	67.8	89.0
Tolono.....	61.9	74.0
Jacksonville.....	52.7	43.7
Edgewood.....	74.4	(^a)

^aNo data taken.

in adhering consistently to a given standard and also in giving proper weight to all the different kinds and degrees of gradation from the standard.

In the first place the tendency to include lower quality corn in the sound class is much greater when the sample is all of inferior quality. The above method of evaluating quality therefore tends to give low-grade entries a relatively higher rating than they should have, and entries of high quality a relatively lower rating than they should have. Furthermore an entry may contain a high proportion of ears that are relatively immature from various causes yet not of low enough quality or sufficiently "chaffy" to be classed in the damaged group. Again the sound corn of some entries may show rather consistently greater

damage from ear worms than that of other entries with equally high yields of sound corn. The amount of weather damage that has resulted from poor husk covering also varies markedly in the sound corn.

In order, therefore, to obtain a more accurate rating of the quality of the grain from the different entries, two or more experienced men estimated the *general quality* of each entry. One hundred was used as the rating for an entry having every ear fully matured and sound, and 0 for an entry all of which was so badly damaged as to be practically worthless even for feeding. Entries having sound ears that were not fully matured or were low in quality for other reasons were marked down in proportion to their deviation from the standard, and chaffy or immature ears classified as damaged were given credit for having some feeding value.

The average of all the individual estimates of the quality of all the replications of a given entry on a given field constitutes, in the accompanying tables, the *general quality* rating for that entry.

Total Yield.—All yields were calculated on the basis of shelled corn containing 16.0 percent moisture, except for the yields on the Alexander and Edgewood fields, which were corrected to 15.5 percent.

In arriving at the rating of any given entry with respect to total yield, the average yield of corn from all the replications of the entry is expressed as a percentage of the average yield from all the entries on the field, including that of the farmers' composite.

Hybrids Proved Superior to Open-Pollinated Varieties

The detailed performance of all entries on the thirteen different fields in the Illinois tests are given in Tables 3 to 18. In these tests the best commercial hybrids proved far superior to the leading open-pollinated varieties; and the better experimental hybrids were distinctly better than the best commercial hybrids.

The above statement is based on the fact that on the ten fields where comparisons were possible, the five open-pollinated varieties had an *average performance rating* of 71.7; the five best commercial hybrids, 86.0; and the five best experimental hybrids, 96.5. The average yield of sound corn from all the open-pollinated varieties was 33.4 bushels; from the commercial hybrids, 39.0 bushels; and from the experimental hybrids, 46.3 bushels an acre.

The hybrids having high performance records showed as much adaptational range from north to south and east to west as did the best open-pollinated varieties. Many of the hybrids showed great capacity to endure the drouth and heat of the 1934 season.

Entries Varied in Capacity to Utilize Plant Nutrients

In their ability to utilize the plant-food materials present in the soil, some entries showed a much higher degree of efficiency than others, as evidenced by the differences in the yields from the same variety or hybrid on fields that varied widely in productive capacity.

The results from the two fields at Urbana demonstrate this point very clearly. One field, the Southwest rotation, growing corn, oats, clover, and wheat, has soil of high productive capacity. The other field, the South-Central rotation, growing corn, corn, corn, and soybeans, has soil of medium productive capacity. Some entries showed much greater differences than did others between their yields on the better soil and their yields on the medium soil. One entry, for example, yielded only 5 additional bushels of sound corn an acre on the better soil than on the medium soil; while another entry, which also yielded more on the medium soil, responded to the better soil to the extent of producing 24.4 more bushels on it than on the medium soil.

This ability of some varieties and hybrids to respond more markedly than others to a better soil—that is, to take advantage of the greater supply of available plant foods in the better soil—is in agreement with unpublished data obtained over a period of years by E. E. DeTurk and J. R. Holbert and with data from the Hartsburg soil experiment field the past year.

Thus the kind of soil on which corn is to be grown must also be taken into consideration when selecting seed for a given locality or field, for the highest yielding variety on one field will not necessarily be the highest yielding variety on another of different productive capacity.

CONTRIBUTORS TO THE 1934 CORN PERFORMANCE TESTS

Variety	Contributor	Address
Blackhawk.....	Ernst Haller, Jr.....	Highland
B. P. I. Hybrid.....	U. S. Dept. Agr., Div. Cereal.....	Washington, D. C.
Cropland and Diseases		
Canterbury Yellow Dent....	C. E. Canterbury.....	Cantrall
Carter Yellow Dent }.....	Floyd Carter.....	Gridley
Carter Hybrid 3A }		
Champion White Pearl.....	F. V. Wilson and Son.....	Edgewood
DeKalb Hybrid 3A, 873.....	DeKalb Co. Agr. Assoc.....	DeKalb
Doubet Yellow Dent.....	Ed. W. Doubet.....	Hanna City
Eckhardt Western Plowman..	Corn Belt Seed Co.....	DeKalb
Eversole White Dent.....	J. H. Eversole.....	Champaign
Farmers' Composites		
Table 3.....	High School Agr. Dept.....	Stockton
Table 4.....	Adjacent farmers.....	Rochelle
Table 8.....	Adjacent farmers.....	Galesburg
Table 10.....	John Wiemken.....	Rankin
Table 13.....	High School Agr. Dept.....	Minier
Table 16.....	High School Agr. Dept.....	Jacksonville

<i>Variety</i>	<i>Contributor</i>	<i>Address</i>
Funk Hybrid 206, <i>etc.</i>		
Funk 176A	Funk Bros. Seed Co.	Bloomington
Funk 329		
Golden Yellow Dent	Claire Golden	Hillsdale
Golden Funk Hybrid 915		
Griffin Yellow Dent	Scott Griffin	Clinton
Gunn Western Plowman	DeKalb Co. Agr. Assoc.	DeKalb
Harmon White	Kans. Sta. and U.S.D.A.	Manhattan, Kansas
Hi-Bred 6, <i>etc.</i>	Hi-Bred Seed Co.	DesMoines, Iowa
Hoosier Hybrid	Purdue Sta. and U.S.D.A.	LaFayette, Indiana
Hulting Yellow Dent		
Hulting-Reid Hybrid		
Hulting Hybrid H-M-1	C. E. Hulting	Geneseo
Hulting Hybrid H-M-2		
Illinois High Yield	Ill. Agr. Exp. Sta.	Urbana
Illinois Hybrid RA, 168, <i>etc.</i>	Ill. Sta. and U.S.D.A.	Urbana
Ill.-Wis. Hybrid 243, <i>etc.</i>	Ill. Sta. and U.S.D.A.	Urbana
Indiana Hybrid BK66TR	Purdue Sta. and U.S.D.A.	LaFayette, Indiana
Iowa Hybrid 13, <i>etc.</i>	Iowa Sta. and U.S.D.A.	Ames, Iowa
Johnson Co. White	Funk Bros. Seed Co.	Bloomington
J. C. W. Hybrid 1	Purdue Sta. and U.S.D.A.	LaFayette, Indiana
Kansas Hybrid 3, 4	Kans. Sta. and U.S.D.A.	Manhattan, Kansas
Lazier Will Co. Favorite	G. A. Lazier and Son	Rochelle
Leaming	Xavier Kiefer	Belle Rive
McKeighan Yellow Dent	J. L. McKeighan	Yates City
Midland Yellow	Kans. Sta. and U.S.D.A.	Manhattan, Kansas
Missouri Hybrid 8, <i>etc.</i>	Missouri Sta. and U.S.D.A.	Columbia, Missouri
Moews Hybrid 18, 20	Ben Moews	Granville
Mohawk	Adolph Wetzel	Alhambra
Moore Yellow Dent	Ill. Agr. Exp. Sta.	Urbana
Morgan Hybrid MW104, <i>etc.</i>	Morgan Brothers	Galva
Mountjoy Utility Dent	Oscar Mountjoy	Atlanta
Nebraska Hybrid 238, <i>etc.</i>	Nebr. Agr. Exp. Sta.	Lincoln, Nebraska
Ohio Hybrid 1, 2	Ohio Agr. Exp. Sta.	Wooster, Ohio
Original Krug	Woodford Co. Agr. Assoc.	Eureka
Pfister Hybrid 58, <i>etc.</i>	Lester Pfister	ElPaso
Pride of Saline	Kans. Sta. and U.S.D.A.	Manhattan, Kansas
Sibley Estate Yellow Dent	L. E. Rust	Sibley
Simmons Will Co. Favorite	C. J. Simmons	Stockton
Sommer Yellow Dent	Sommer Brothers	Pekin
Station Yellow Dent	Ill. Agr. Exp. Sta.	Urbana
St. Charles White	E. H. Isenberg	Kaufman
Stiegelmeier Yellow Dent		
Stiegelmeier Sunnyfield	H. L. Stiegelmeier	Normal
Stiegelmeier 100-Day		
Stiegelmeier Hybrid 2		
Sullivan Yellow Dent	John Sullivan	Galesburg
Waddell Utility Yellow Dent		
Waddell Golden Beauty	Elmer Waddell	Taylorville
Waddell Utility White Dent		
Webb Will Co. Favorite	William Webb	Plainfield
Wisconsin Hybrid I-A, <i>etc.</i>	Wis. Agr. Exp. Sta.	Madison, Wisconsin
Wood Hybrid	Wood Seed Co.	Richmond, Virginia
Zeller Yellow Dent	Joseph Zeller	Alexander

Name and rank of entry	Acre yield ^a		Moisture in grain at harvest		Lodging resistance		Performance rating for—		General average of performance ratings
	Total	Sound	bu.	per cent.	bu.	per cent.	General quality of grain	Total yield ^b	
Regular division—entries in commercial production									
1 Funk Hybrid 214.....	91.8	91.3	21.6	67.0	90.6	109.0	110.0	94.2	
2 Iowa Hybrid 13.....	96.5	91.9	22.4	59.4	66.3	114.6	110.7	87.8	
3 DeKalb Hybrid 3A.....	87.4	85.4	19.3	53.1	90.6	103.8	102.9	87.6	
4 Webb Will Co. Favorite.....	76.1	75.0	20.5	53.8	86.3	90.4	90.4	80.2	
5 Funk 329.....	76.2	73.8	23.4	51.3	75.6	90.5	88.9	76.6	
6 Gunn Western Plowman.....	72.6	71.4	19.6	51.9	81.3	86.2	86.0	76.4	
7 Simmons Will Co. Favorite.....	70.7	69.8	20.7	53.1	83.1	84.0	84.1	76.1	
Average of division.....	81.6	79.8	21.1	55.7	82.0	96.9	96.1	82.7	
Farmers' composite.....	72.7	69.9	19.6	40.6	76.9	86.3	84.2	72.0	
Experimental division—entries not in commercial production									
1 Illinois Hybrid 368.....	93.6	93.3	20.7	68.8	89.3	111.2	112.4	95.4	
2 Illinois Hybrid 304.....	91.1	90.7	20.2	63.8	94.3	108.2	109.3	93.9	
3 Illinois Hybrid 172.....	95.2	94.0	21.4	64.4	83.1	113.1	113.3	93.5	
4 Illinois Hybrid 221.....	90.1	89.6	21.6	61.3	91.3	107.7	108.0	92.1	
5 Illinois Hybrid 168.....	83.4	83.3	21.6	71.9	94.9	99.0	100.4	91.6	
6 Illinois Hybrid 373.....	86.6	86.1	20.7	63.8	89.4	102.9	103.7	90.0	
7 Funk Hybrid 614.....	89.7	88.5	21.8	61.9	83.8	106.5	106.6	89.7	
8 Funk Hybrid 616.....	82.7	82.2	21.2	65.0	91.3	98.2	99.0	88.4	
9 DeKalb Hybrid 873.....	81.0	80.6	19.6	70.6	88.1	96.2	97.1	88.0	
10 Illinois Hybrid R4451.....	89.6	87.7	21.2	55.0	83.8	106.4	105.7	87.7	
11 Illinois Hybrid 294.....	89.9	88.8	22.7	43.1	79.4	106.8	107.0	84.1	
12 Ill.-Wis. Hybrid 243.....	77.9	77.1	19.9	49.4	77.5	92.5	92.9	78.1	
13 Ill.-Wis. Hybrid 245.....	72.8	72.3	21.2	49.4	82.5	86.5	87.1	76.4	
Average of division.....	86.4	85.7	21.1	60.6	86.8	102.7	103.3	88.4	
Average of all entries.....	84.2	83.0	21.0	58.0	84.7	....	....	85.7	

^aIn calculating the yield per acre a correction was made for missing hills by crediting each missing hill with .6 of the average weight of the other hills. ^bIn all tables on performance ratings, total yield and sound corn yield are expressed in percentages based on 100 percent as the average of all entries on the field.

TABLE 4.—ROCHELLE, NORTHERN ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resis- tance	Performance rating for—			General average of perfor- mance ratings
	Total	Sound			General quality of grain	Total yield	Sound yield	
	bu.	bu.			percent.	percent.	percent.	
Regular division—entries in commercial production								
1 Iowa Hybrid 13.....	68.0	35.6	20.2	77.0	47.5	148.1	106.9	94.9
2 Funk Hybrid 214.....	56.8	41.6	21.6	64.0	63.8	123.7	124.9	94.1
3 Hi-Bred 351.....	56.3	38.8	19.8	64.8	60.0	122.7	116.5	91.0
4 Iowa Hybrid 942.....	52.7	31.0	19.9	86.0	51.3	114.8	93.1	86.3
5 DeKalb Hybrid 3A.....	44.4	34.6	18.8	68.8	70.0	96.7	103.9	84.9
6 Hi-Bred 20.....	48.7	17.1	20.2	85.3	35.0	106.1	51.4	69.5
7 Lrazier Will Co. Favorite.....	33.7	22.8	19.5	64.0	58.8	73.4	68.5	66.2
8 Funk 329.....	35.8	20.9	20.7	69.0	48.8	78.0	62.8	64.7
9 Gunn Western Plowman.....	26.6	20.6	19.3	54.3	67.5	58.0	61.9	60.4
Average of division.....	47.0	29.2	20.0	70.4	55.9	102.4	87.8	79.1
Farmers' composite.....	38.7	29.3	20.7	54.5	63.8	84.3	88.0	72.7

TABLE 4.—ROCHELLE, NORTHERN ILLINOIS—Concluded

Name and rank of entry	Acre yield			Moisture in grain at harvest			Performance rating for—			General average of performance ratings
	Total	Sound	bu.	per cent.	per cent.	per cent.	Lodging-resistance	General quality of grain	Total yield	
Experimental division—entries <i>not</i> in commercial production										
1 Illinois Hybrid 172.....	62.6	49.2	bu.	20.7	68.3	per cent.	71.3	136.4	147.7	105.9
2 Illinois Hybrid R4451.....	57.8	47.5	20.5	66.5	78.8	125.9	142.6	103.5	103.5	103.5
3 Illinois Hybrid 364.....	60.2	46.1	21.6	71.3	68.8	131.2	138.4	102.4	102.4	102.4
4 Illinois Hybrid 368.....	60.2	48.5	21.2	52.8	70.0	131.2	145.6	99.9	99.9	99.9
5 Funk Hybrid 616.....	53.8	45.5	19.9	56.0	81.3	117.2	136.6	97.8	97.8	97.8
6 Illinois Hybrid 304.....	52.9	42.8	19.9	67.2	70.0	115.3	128.5	95.3	95.3	95.3
7 Illinois Hybrid 168.....	49.9	42.9	20.5	62.5	80.0	108.7	128.8	95.0	95.0	95.0
8 Illinois Hybrid 221.....	54.5	40.8	21.4	73.0	65.0	118.7	122.5	94.8	94.8	94.8
9 Illinois Hybrid 373.....	50.5	38.5	20.2	73.3	70.0	110.0	115.6	92.2	92.2	92.2
10 Funk Hybrid 614.....	53.6	39.3	21.0	44.3	65.0	116.8	118.0	86.0	86.0	86.0
11 Illinois Hybrid 294.....	54.0	38.4	21.8	44.3	62.5	117.6	115.3	84.9	84.9	84.9
12 Ill.-Wis. Hybrid 243.....	39.3	29.6	21.0	60.3	67.5	85.6	88.9	75.6	75.6	75.6
13 DeKalb Hybrid 873.....	42.1	28.3	19.3	74.0	50.0	91.7	85.0	75.2	75.2	75.2
14 Ill.-Wis. Hybrid 245.....	39.0	29.5	18.8	51.8	62.5	85.0	88.6	72.0	72.0	72.0
15 Wisconsin Hybrid I-A.....	34.9	28.2	19.4	47.8	73.8	76.0	84.7	70.6	70.6	70.6
16 Wisconsin Hybrid I-B.....	37.2	30.5	19.3	16.5	76.3	81.0	91.6	66.4	66.4	66.4
17 Wisconsin Hybrid I-E.....	32.6	25.9	18.5	44.5	71.3	71.0	77.8	66.2	66.2	66.2
18 Wisconsin Hybrid I-C.....	31.5	26.1	18.7	28.8	73.8	68.6	78.4	62.4	62.4	62.4
19 Wisconsin Hybrid I-D.....	27.1	20.3	19.0	65.8	63.8	59.0	61.0	62.4	62.4	62.4
20 Ill.-Wis. Hybrid 244.....	36.3	24.0	19.5	33.5	62.5	79.1	72.1	61.8	61.8	61.8
21 Wisconsin Hybrid I-F.....	30.1	16.8	19.5	53.0	62.5	65.6	50.5	57.9	57.9	57.9
Average of division	45.7	35.2	20.1	55.0	68.9	99.6	105.6	82.3	82.3	82.3
Average of all entries	45.9	33.3	20.1	59.5	64.9	....	....	81.1	81.1	81.1

TABLE 5.—STOCKTON AND ROCHELLE: AVERAGE OF DUPLICATED ENTRIES, 1934

Name and rank of entry	Acre yield		Moisture in grain at harvest	Logging resist- ance	General quality of grain	Performance rating for—		General average of perform- ance ratings
	Total	Sound				Total yield	Sound yield	
Regular division—entries in commercial production								
	bu.	bu.	perct.	perct.	perct.	perct.	perct.	
1	Funk Hybrid 214.....	74.3	66.5	21.6	65.5	77.2	116.4	94.2
2	Iowa Hybrid 13.....	82.3	63.8	21.3	68.2	56.9	131.4	91.4
3	DeKalb Hybrid 3A.....	65.9	60.0	19.1	61.0	80.3	100.3	86.3
4	Funk 329.....	56.0	47.4	22.1	60.2	62.2	84.3	70.7
5	Gunn Western Plowman.....	49.6	46.0	19.5	53.1	74.4	72.1	68.4
	Average of division.....	65.6	56.7	20.7	61.6	70.2	100.9	82.2
Experimental division—entries not in commercial production								
1	Illinois Hybrid 172.....	78.9	71.6	21.1	66.4	77.2	124.7	130.5
2	Illinois Hybrid 368.....	76.9	70.9	21.0	60.8	79.7	121.2	129.0
3	Illinois Hybrid R4451.....	73.7	67.6	20.9	60.8	81.3	116.2	124.2
4	Illinois Hybrid 304.....	72.0	66.8	20.1	65.5	82.2	111.8	118.9
5	Illinois Hybrid 221.....	72.6	65.2	21.5	67.2	78.2	113.2	115.3
6	Illinois Hybrid 168.....	66.7	63.1	21.1	67.2	87.5	103.9	114.6
7	Funk Hybrid 616.....	68.3	63.9	20.6	60.5	86.3	107.7	117.8
8	Illinois Hybrid 373.....	68.6	62.3	20.5	68.6	79.7	106.5	109.7
9	Funk Hybrid 614.....	71.7	63.9	21.4	53.1	74.4	111.7	112.3
10	Illinois Hybrid 294.....	72.0	63.6	22.3	43.7	71.0	112.2	111.2
11	DeKalb Hybrid 873.....	61.6	54.5	19.5	72.3	69.1	94.0	81.6
12	Ill.-Wis. Hybrid 243.....	58.6	53.4	20.0	54.9	72.5	89.1	90.9
13	Ill.-Wis. Hybrid 245.....	55.9	50.9	20.0	50.6	72.5	85.8	87.9
	Average of division.....	69.0	62.9	20.8	60.9	77.8	107.5	111.8

TABLE 6.—DEKALB, NORTHERN ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Acre yield		Moisture and cob in ears at harvest	Lodging resistance	General quality of grain	Performance rating for—		General average of performance ratings
	Total	Sound				Total yield	Sound yield	
Regular division—entries in commercial production								
1 DeKalb Hybrid 3A.....	bu.	bu.	per cent.	per cent.	per cent.	per cent.	per cent.	94.5
2 Hi-Bred 351.....	33.6	25.2	36.5	56.3	65.0	113.5	143.2	73.5
3 Hi-Bred 323.....	29.3	14.0	40.4	71.0	44.5	99.0	84.7	68.4
4 Eckhardt Western Plowman.....	22.2	14.9	42.3	67.5	46.7	75.0	70.9	63.5
5 Gunn Western Plowman.....	21.0	14.1	50.7	57.0	46.0	70.9	80.1	63.2
6 Original Krug.....	23.0	16.5	39.0	47.5	34.0	77.7	93.7	61.4
7 Webb Will Co. Favorite.....	22.9	12.9	37.3	51.5	43.5	77.4	73.3	59.1
Average of division.....	16.5	11.9	46.0	57.0	56.0	55.7	67.6	59.1
Average of all entries.....	24.1	15.6	41.7	58.3	48.0	81.3	88.9	69.1
Experimental division—entries <i>not</i> in commercial production								
1 Illinois Hybrid 366.....	46.3	27.4	44.4	55.0	60.5	156.4	155.7	106.9
2 Illinois Hybrid 368.....	46.8	24.8	47.7	46.5	56.5	158.1	140.9	100.5
3 Illinois Hybrid 465.....	38.5	26.0	46.0	62.5	56.5	130.1	147.7	99.2
4 Illinois Hybrid 221.....	38.1	21.1	50.7	68.5	52.5	128.7	120.0	92.4
5 Illinois Hybrid 373.....	34.6	22.7	50.6	56.5	58.5	116.9	129.0	90.2
6 Illinois Hybrid 294.....	38.9	22.7	49.4	44.0	53.5	131.4	129.0	89.5
7 Illinois Hybrid 304.....	33.7	17.6	47.6	71.0	52.0	113.9	100.0	84.2
8 Hi-Bred 20.....	32.2	14.5	51.0	86.0	38.5	108.9	82.4	79.0
9 Illinois Hybrid 168.....	28.6	16.3	45.7	58.0	57.5	96.6	92.6	76.2
10 DeKalb Hybrid 873.....	24.1	15.7	49.3	66.5	44.5	81.4	89.2	70.4
11 Ill.-Vis. Hybrid 244.....	22.9	14.0	50.4	35.0	47.0	77.4	79.5	59.7
12 Ill.-Vis. Hybrid 243.....	19.5	10.9	47.5	57.0	50.0	65.9	61.9	58.7
13 Ill.-Vis. Hybrid 245.....	18.5	8.0	61.0	53.0	44.0	62.5	45.5	51.2
Average of division.....	32.5	18.6	49.3	58.4	51.7	108.5	105.6	81.4
Average of all entries.....	29.6	17.6	46.7	58.4	50.4	....	....	77.1

TABLE 7.—GRANVILLE, NORTH-CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resist- ance	General quality of grain	Performance rating for—		General average of perform- ance ratings
	Total	Sound				Total yield	Sound yield	
Regular division—entries in commercial production								
1 Funk Hybrid 206.....	37.6	21.8	17.0	77.5	57.5	109.3	146.3	97.7
2 Pfister Hybrid 4857.....	41.1	17.1	18.5	62.0	48.1	119.5	114.8	86.1
3 Hulting Hybrid H-M-1.....	39.7	16.8	18.5	61.3	42.9	115.4	112.8	83.1
4 Funk Hybrid 214.....	33.8	15.0	17.3	73.8	53.8	98.3	100.7	81.7
5 Iowa Hybrid 13.....	44.2	14.0	17.9	55.0	32.5	128.5	94.0	77.5
6 Pfister Hybrid 584.....	35.6	13.9	18.1	63.1	41.9	103.5	93.3	75.5
7 Station Yellow Dent.....	32.8	14.0	17.9	61.9	49.4	95.3	94.0	75.2
8 Hulting Yellow Dent.....	36.7	15.6	17.9	45.0	38.8	106.7	104.7	73.8
9 Funk Hybrid 220.....	35.7	12.9	17.5	61.3	40.6	103.8	86.6	73.1
10 McKeigan Yellow Dent.....	32.0	13.2	17.9	58.8	46.3	93.0	88.6	71.7
11 Hulting-Reid Hybrid.....	34.7	11.7	17.6	48.1	29.4	100.9	78.5	64.2
12 Iowa Hybrid 942.....	36.2	10.9	19.0	46.9	30.0	105.2	73.2	63.8
13 Stegelmeyer Yellow Dent.....	27.2	11.4	18.5	56.3	39.4	79.1	76.5	62.8
14 Original Krug.....	30.3	11.2	18.8	43.8	41.3	88.1	75.2	62.1
15 Sommer Yellow Dent.....	28.7	11.8	18.7	44.4	40.6	83.4	79.2	61.9
16 Hulting Hybrid H-M-2.....	33.4	8.3	17.9	58.1	35.0	97.1	55.7	61.5
17 Hi-Bred 311.....	31.5	6.4	18.7	76.9	23.8	91.6	43.0	58.8
18 Pfister Hybrid 458.....	31.0	9.0	18.1	50.6	33.1	90.1	60.4	58.6
19 Golden Yellow Dent.....	25.3	9.8	18.8	44.4	39.4	73.5	65.8	55.8
20 Morgan Hybrid MW104.....	26.4	7.4	17.3	67.5	29.4	76.2	49.7	55.7
21 Funk 176A.....	27.8	9.8	19.6	43.1	32.5	80.5	65.8	55.5
22 Golden Funk Hybrid 915.....	24.2	8.2	17.6	51.9	36.3	70.3	55.0	53.4
23 Stegelmeyer 100-Day.....	25.6	8.6	17.6	45.9	31.3	74.4	57.7	52.3
24 Morgan Hybrid MW106.....	19.6	5.3	18.1	60.0	26.3	57.0	35.6	44.7
Average of division.....	32.1	11.8	18.1	56.6	38.3	93.4	79.5	66.9

TABLE 7.—GRANVILLE, NORTH-CENTRAL ILLINOIS—Concluded

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resist- ance	Performance rating for—		General average of perform- ance ratings
	Total	Sound			Percent.	Percent.	
Experimental division—entries <i>not</i> in commercial production							
1 Moews Hybrid 20	45.4	29.9	17.7	75.6	67.5	132.0	200.7
2 Illinois Hybrid 314	39.9	24.2	17.6	75.0	61.3	116.0	162.4
3 Illinois Hybrid 172	42.6	23.4	17.4	73.8	58.1	123.8	157.0
4 Moews Hybrid 18	39.5	22.5	17.9	79.4	58.8	114.8	151.0
5 Illinois Hybrid 391	45.6	21.6	19.7	69.4	52.8	132.6	145.0
6 Illinois Hybrid 221	39.4	20.5	17.9	77.5	65.0	114.5	144.5
7 Illinois Hybrid 368	43.0	20.8	17.6	56.3	54.4	125.0	137.6
8 Funk Hybrid 230	35.9	20.4	19.4	73.8	54.0	104.4	136.9
9 Illinois Hybrid 905	38.9	18.1	17.6	66.3	55.6	113.1	121.5
10 Hi-Bred 8	37.4	17.7	17.9	78.1	45.0	108.7	118.8
11 Illinois Hybrid 373	35.8	19.8	18.7	51.9	56.3	104.1	132.9
12 Illinois Hybrid 304	36.3	18.7	17.3	45.6	58.1	105.5	125.5
13 Illinois Hybrid 396	36.8	16.3	17.6	67.5	40.6	107.0	109.4
14 Funk Hybrid 614	30.6	15.1	17.6	52.5	46.9	89.0	101.3
15 Illinois Hybrid 168	33.2	16.1	16.9	30.0	49.4	96.5	108.1
16 Illinois Hybrid 294	23.5	8.3	18.7	28.1	33.8	68.3	55.7
Average of division...	37.7	19.6	18.0	62.5	53.6	109.7	131.5
Average of all entries	34.4	14.9	18.1	59.0	44.4	.....	75.9

TABLE 8.—GALESBURG, NORTH-CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resist- ance	General quality of grain	Performance rating for—		General average of perform- ance ratings
	Total	Sound				perf.	perf.	
	bu.	bu.				perf.	perf.	
Regular division—entries in commercial production								
1 Funk Hybrid 208.....	59.2	44.3	15.4	67.2	63	106.0	115.4	87.9
2 Iowa Hybrid 13.....	66.6	42.2	15.6	70.0	51	119.4	109.9	87.6
3 Funk Hybrid 206.....	55.8	40.5	17.9	66.3	65	100.0	105.5	84.2
4 Funk Hybrid 214.....	54.7	39.3	16.4	75.0	60	98.0	102.3	83.8
5 Sonnmer Yellow Dent.....	58.3	43.2	17.6	42.7	65	104.5	112.5	81.2
6 McKeighan Yellow Dent.....	52.9	42.8	16.2	57.2	61	94.8	111.5	81.1
7 Station Yellow Dent.....	54.1	41.0	16.6	54.8	65	97.0	106.8	80.9
8 Mountjoy Utility Dent.....	54.4	39.7	18.1	43.5	58	97.5	103.4	75.6
9 Pister Hybrid 4857.....	57.4	36.8	16.7	53.8	50	102.9	95.8	75.6
10 Doubt Yellow Dent.....	51.8	36.3	17.2	44.7	59	92.8	94.5	72.8
11 Original Krug.....	56.2	36.0	16.1	40.5	55	100.7	93.8	72.5
12 Siegelmeyer Yellow Dent.....	48.7	36.0	18.5	42.3	60	87.3	93.8	70.9
13 Sullivan Yellow Dent.....	50.3	33.7	17.6	52.7	52	90.1	87.8	70.7
14 Morgan Hybrid MW106.....	52.8	30.5	15.9	56.7	45	94.6	79.4	68.9
15 Funk 176A.....	51.9	30.6	17.3	38.5	50	93.0	79.7	65.3
16 Hi-Bred 306.....	51.8	26.5	16.9	55.3	43	92.8	69.0	65.0
17 Morgan Hybrid MW104.....	43.9	19.9	16.1	43.3	35	78.7	51.8	52.2
Average of division.....	54.2	36.4	16.8	53.2	55.1	97.1	94.9	75.1
Farmers' composite.....	47.7	26.0	16.9	33.0	42.0	85.5	67.7	57.1

TABLE 8.—GALESBURG, NORTH-CENTRAL ILLINOIS—*Concluded*

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resistance	Performance rating for—			General average of performance ratings
	Total	Sound			bu.	percent.	percent.	
Experimental division—entries <i>not</i> in commercial production								
1 Illinois Hybrid 360	63.6	50.0	17.2	73.8	63	114.0	130.2	95.3
2 Illinois Hybrid 314	63.4	51.5	16.5	59.9	71.5	113.6	134.1	94.8
3 Illinois Hybrid 391	65.8	46.4	17.0	64.3	60	117.9	120.8	90.8
4 Illinois Hybrid 221	56.7	44.6	16.1	76.6	66	101.6	116.1	90.1
5 Hi-Bred 13	61.7	44.0	16.1	72.0	57	110.6	114.6	88.6
6 Funk Hybrid 229	61.3	43.1	15.9	70.7	59	109.9	112.2	88.0
7 Illinois Hybrid 396	62.7	45.3	17.2	58.0	57	112.4	118.0	86.4
8 Illinois Hybrid 373	54.3	45.2	16.7	67.0	62	97.3	117.7	86.0
9 Stiegelmeier Hybrid 2	60.8	43.0	16.9	60.2	63	109.0	112.0	86.1
10 Illinois Hybrid 168	51.7	43.4	15.4	73.0	64	92.7	113.0	85.7
11 Illinois Hybrid 368	63.3	43.6	15.9	62.3	54	113.4	113.5	85.8
12 Illinois Hybrid 372	57.9	43.4	15.6	61.3	54	103.8	113.0	83.0
13 Illinois Hybrid 905	58.1	42.5	16.1	61.2	56	104.1	110.7	83.0
14 Illinois Hybrid 172	57.8	41.6	16.4	53.5	57	103.6	108.3	80.6
15 Illinois Hybrid 294	51.0	33.9	16.4	36.3	55	91.4	88.3	67.8
16 Morgan Hybrid MW138R . . .	51.2	24.8	16.6	59.0	41	91.8	64.6	64.1
17 Morgan Hybrid MW105	47.9	27.7	15.8	48.3	44	85.8	72.1	62.6
18 Morgan Hybrid MW120	50.3	23.9	15.9	54.7	39	90.1	62.2	61.5
Average of division	57.8	41.0	16.3	61.8	56.8	103.5	106.7	82.2
Average of all entries	55.8	38.4	16.6	56.9	55.6	....	....	78.2

TABLE 9.—GRANVILLE AND GALESBURG: AVERAGE OF DUPLICATED ENTRIES, 1934

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resist- ance	Performance rating for—			General average of perform- ance ratings
	Total	Sound			General quality of grain	Total yield	Sound yield	
Regular division—entries in commercial production								
1 Funk Hybrid 206.....	46.7	31.2	per cent.	per cent.	per cent.	per cent.	per cent.	91.0
2 Funk Hybrid 214.....	44.3	27.2	17.5	71.9	61.3	104.7	125.9	82.8
3 Iowa Hybrid 13.....	55.4	28.0	16.9	74.4	56.9	98.2	101.5	82.6
4 Pfister Hybrid 4857.....	49.3	27.0	16.8	62.5	41.8	124.0	102.0	80.9
5 McKeighan Yellow Dent.....	42.5	28.0	17.6	57.9	49.1	111.2	105.3	80.9
6 Stiegelmeier Yellow Dent.....	40.7	26.2	17.1	58.0	53.7	93.9	100.1	76.4
7 Sommer Yellow Dent.....	43.5	27.5	18.5	55.6	52.7	88.1	91.7	71.9
8 Original Krug.....	43.3	23.6	18.2	43.6	52.8	94.0	95.9	71.6
9 Funk 176A.....	39.9	20.2	17.5	42.2	48.2	94.4	84.5	67.3
10 Morgan Hybrid MW106.....	36.2	17.9	17.0	58.4	35.7	75.8	57.5	56.9
11 Morgan Hybrid MW104.....	35.2	13.7	16.7	55.4	32.2	77.7	50.8	54.0
Average of division.....	43.4	24.6	17.5	56.4	47.7	95.4	89.8	72.3
Experimental division—entries <i>not</i> in commercial production								
1 Illinois Hybrid 314.....	51.7	37.9	17.1	67.5	66.4	114.8	148.3	99.3
2 Illinois Hybrid 391.....	55.7	34.0	18.4	66.9	56.4	125.3	132.9	95.4
3 Illinois Hybrid 221.....	48.1	32.6	17.0	77.1	65.5	108.1	126.9	94.4
4 Illinois Hybrid 172.....	50.2	32.5	16.9	63.7	57.6	113.7	132.7	91.9
5 Illinois Hybrid 368.....	53.2	32.2	16.8	59.3	54.2	119.3	126.6	89.9
6 Illinois Hybrid 373.....	45.1	32.5	17.7	59.5	59.2	100.9	125.3	86.2
7 Illinois Hybrid 905.....	48.5	30.3	16.9	63.8	55.8	108.6	116.1	86.1
8 Illinois Hybrid 396.....	49.8	30.8	17.4	62.8	48.8	109.7	113.7	83.8
9 Illinois Hybrid 168.....	42.5	29.8	16.2	51.5	56.7	94.6	110.6	78.4
10 Station Yellow Dent.....	43.5	27.5	17.3	58.4	57.2	96.2	100.4	78.1
11 Illinois Hybrid 294.....	37.3	21.1	17.6	32.2	44.4	79.9	72.0	57.1
Average of division.....	47.8	31.0	17.2	60.2	56.6	106.5	118.7	85.5

TABLE 10.—RANKIN, CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Total acre yield	Moisture in grain at harvest	Performance rating for—			General average of performance ratings
			Lodging resistance	General quality of grain	Total yield	
Regular division—entries in commercial production						
	bu.	per cent.	per cent.	per cent.	per cent.	per cent.
1 Funk Hybrid 214.....	30.9	14.5	69.3	66.0	117.9	84.4
2 Funk Hybrid 220.....	30.1	15.7	68.4	64.5	114.9	82.6
3 Iowa Hybrid 13.....	35.1	14.3	64.4	44.5	134.0	81.0
4 Funk Hybrid 208.....	28.6	16.1	72.4	61.0	109.2	80.9
5 Pfister Hybrid 4857.....	30.0	15.1	70.9	55.5	114.5	80.3
6 Funk Hybrid 206.....	26.2	16.5	73.3	61.0	100.0	78.1
7 Station Yellow Dent.....	22.9	17.0	63.7	66.0	87.4	72.4
8 Stiegelmeier Sunnyfield.....	24.0	15.6	59.4	63.8	91.6	71.6
9 Doubtful Yellow Dent.....	23.2	16.0	65.1	57.5	88.6	70.4
10 Original Krug.....	24.3	15.7	56.2	55.0	92.7	68.0
11 Carter Yellow Dent.....	20.1	15.4	61.4	56.5	76.7	64.9
12 Funk 176A.....	20.2	16.2	64.0	50.5	77.1	63.9
Average of division.....	26.3	15.7	65.7	58.5	100.4	74.9
Farmers' composite.....	21.2	15.5	69.7	55.5	80.9	68.7

(Table is concluded on next page)

TABLE 10.—RANKIN, CENTRAL ILLINOIS—Concluded

Name and rank of entry	Total acre yield	Moisture in grain at harvest	Performance rating for—			General average of performance ratings
			Lodging resistance	General quality of grain	Total yield	
Experimental division—entries <i>not</i> in commercial production						
1 Illinois Hybrid 905.....	36.5	15.9	per cent.	per cent.	per cent.	94.4
2 Illinois Hybrid R5675.....	33.0	15.4	72.8	67.3	126.0	88.7
3 Illinois Hybrid 391.....	32.8	15.5	66.7	59.0	125.2	83.6
4 Illinois Hybrid R4226.....	30.3	15.3	64.7	69.0	115.7	83.1
5 Illinois Hybrid R4211.....	29.1	15.7	76.4	59.5	111.1	82.3
6 Illinois Hybrid 373.....	28.9	14.4	62.7	63.0	110.3	78.7
7 Funk Hybrid 229.....	31.2	15.1	68.6	47.5	119.1	78.4
8 Illinois Hybrid R5673.....	25.9	15.2	67.6	66.5	98.9	77.7
9 Illinois Hybrid 384.....	27.1	15.5	66.0	58.5	103.4	76.0
10 Illinois Hybrid R5120.....	24.8	17.3	69.8	62.0	94.7	75.5
11 Illinois Hybrid 172.....	25.4	15.1	68.0	61.0	96.9	75.3
12 Illinois Hybrid 368.....	27.4	15.3	61.2	60.0	104.6	75.3
13 Carter Hybrid 3A.....	23.9	16.7	69.1	59.0	91.2	73.1
14 Illinois Hybrid 512.....	22.1	17.2	72.8	55.5	84.4	70.9
15 Illinois Hybrid 372.....	26.4	14.7	56.3	53.3	100.8	70.1
16 Illinois Hybrid 314.....	19.2	17.8	75.0	58.5	73.3	68.9
17 Illinois Hybrid RA.....	22.8	15.9	56.1	59.0	87.0	67.4
18 Illinois Hybrid 294.....	19.0	17.8	56.0	66.5	72.5	65.0
19 Illinois Hybrid R5678.....	18.5	15.9	66.6	57.5	70.6	64.9
20 Illinois Hybrid 168.....	23.8	14.3	46.0	56.5	90.8	64.4
Average of division.....	26.4	15.8	65.6	60.7	100.8	75.7
Average of all entries.....	26.2	15.7	65.7	59.7		75.2

TABLE 11.—URBANA—SOUTHWEST ROTATION, CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Acre yield		Moisture and cob in ears at harvest	Performance rating for—			General average of performance ratings	
	Total	Sound		Lodging resistance	Total yield	Sound yield		
	bu.	bu.						
Regular division—entries in commercial production								
1 Pfister Hybrid 4857.....	72.1	58.1	30.8	69.5	110.8	110.6	97.0	
2 Station Yellow Dent.....	64.4	55.3	32.5	59.0	98.9	105.2	87.7	
3 McKeighan Yellow Dent.....	59.6	51.1	34.9	56.5	91.5	97.2	81.7	
4 Nebraska Hybrid 238.....	62.9	50.0	31.0	53.0	96.6	95.1	81.6	
5 Nebraska Hybrid 362.....	64.2	46.8	33.0	51.5	98.7	89.1	79.8	
6 Champion White Pearl.....	42.7	37.5	41.1	77.0	65.5	71.2	71.2	
7 Canterbury Yellow Dent.....	50.5	42.1	41.0	56.0	77.6	80.1	71.2	
8 Original Krug.....	53.9	40.2	31.4	50.0	82.8	76.5	69.8	
9 Nebraska Hybrid 252.....	52.4	36.9	35.2	52.5	80.5	70.2	67.7	
10 Mountjoy Utility Dent.....	51.3	39.2	31.9	49.5	78.7	74.6	67.6	
11 Sommer Yellow Dent.....	50.3	40.4	33.7	43.5	77.3	76.8	65.9	
Average of division.....	56.8	45.2	34.2	56.2	87.2	86.1	76.5	

(Table is concluded on next page)

TABLE 11.—URBANA—SOUTHWEST ROTATION, CENTRAL ILLINOIS—Concluded

Name and rank of entry	Acre yield		Moisture in grain at harvest		Performance rating for—			General average of performance ratings
	Total	Sound			Lodging resistance	Total yield	Sound yield	
Experimental division—entries <i>not</i> in commercial production								
			bu.	per cent.	bu.	per cent.	bu.	per cent.
1 Illinois Hybrid 395.....	93.5	80.6	31.2	60.0	143.7	153.2	119.0	
2 Illinois Hybrid 384.....	77.5	70.6	30.6	60.0	119.1	134.2	104.4	
3 Illinois Hybrid 213.....	76.5	63.9	31.5	58.5	117.6	121.4	99.2	
4 Illinois Hybrid 392.....	75.8	62.3	32.8	61.5	116.4	118.4	98.8	
5 Illinois Hybrid 524.....	73.6	64.9	33.2	52.5	113.1	123.3	96.3	
6 Illinois Hybrid 372.....	71.7	61.6	31.9	59.0	110.3	117.2	95.5	
7 Illinois Hybrid 172.....	74.6	63.9	30.8	49.5	114.6	121.6	95.2	
8 Illinois Hybrid 369.....	76.9	62.6	30.4	45.0	118.2	119.1	94.1	
9 Illinois Hybrid 391.....	73.7	61.1	34.7	50.0	113.3	116.2	93.2	
10 Illinois Hybrid 360.....	70.3	59.5	30.4	54.5	108.1	113.0	91.9	
11 Illinois Hybrid 912.....	70.8	58.5	32.5	55.5	108.8	111.2	91.8	
12 Illinois Hybrid 396.....	77.1	62.9	32.3	35.5	118.4	119.6	91.2	
13 Illinois Hybrid 314.....	65.1	56.9	33.9	60.0	100.0	108.1	89.4	
14 Hi-Bred 12.....	67.6	47.8	32.6	71.5	103.9	90.8	88.7	
15 Illinois Hybrid 518.....	75.1	62.0	36.3	32.0	115.4	118.0	88.5	
16 Illinois Hybrid R4226.....	62.8	53.5	31.2	57.0	96.4	101.7	85.0	
17 Illinois Hybrid J4211.....	64.1	51.0	32.3	54.5	98.5	97.0	83.3	
18 Illinois Hybrid R5678.....	64.1	48.0	31.9	60.0	98.5	91.3	83.3	
19 Ohio Hybrid 1.....	60.5	35.9	26.6	79.5	93.0	68.2	80.2	
20 B. P. I. Hybrid.....	67.1	52.0	31.7	37.5	103.1	99.0	79.9	
21 Hi-Bred 9.....	56.2	39.0	45.5	74.0	86.4	74.2	78.2	
22 Wood Hybrid.....	56.7	42.4	22.2	61.0	87.1	80.6	76.2	
23 Ohio Hybrid 2.....	61.6	48.3	33.5	38.5	94.7	91.9	75.0	
24 Illinois Hybrid 231.....	53.3	42.2	39.1	52.0	82.0	80.3	71.4	
25 Illinois Hybrid 294.....	52.2	44.3	33.9	46.5	80.3	84.3	70.4	
Average of division.....	68.7	55.8	32.5	54.6	105.6	106.2	88.8	
Average of all entries.....	65.1	52.6	33.0	55.1	....	....	85.0	

Table 12.—URBANA—SOUTH-CENTRAL ROTATION, CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resist- ance	Performance rating for—		General average of perform- ance ratings
	Total	Sound			General quality of grain	Total yield	
Regular division—entries in commercial production							
1 Station Yellow Dent.....	45.1	38.0	18.3	36.5	69.5	86.2	70.1
2 Original Krug.....	43.6	31.9	18.0	20.0	60.0	83.4	59.4
3 Griffin Yellow Dent.....	30.4	24.0	17.6	29.0	51.0	58.1	48.5
Average of division.....	39.7	31.3	18.0	28.5	60.2	75.9	59.3
Experimental division—entries <i>not</i> in commercial production							
1 Kansas Hybrid 3.....	65.7	62.0	18.1	42.5	85.0	125.6	143.9
2 Illinois Hybrid 172.....	62.4	59.5	16.9	37.0	80.0	119.3	138.1
3 Kansas Hybrid 4.....	57.4	54.6	17.6	26.5	87.5	109.8	126.7
4 Illinois Hybrid 360.....	60.0	48.1	17.5	38.5	78.5	114.7	111.6
5 Illinois Hybrid 508.....	52.7	43.2	17.0	69.0	66.5	100.8	100.2
6 Illinois Hybrid 221.....	54.6	50.1	16.7	39.0	71.0	104.4	116.2
7 Illinois Hybrid R5675.....	56.0	49.0	17.0	31.5	76.0	107.1	113.8
8 Illinois Hybrid 128.....	51.7	48.5	16.2	36.5	79.5	98.9	112.5
9 Illinois Hybrid 515.....	58.0	47.3	17.9	36.0	67.5	110.9	109.7
10 Illinois Hybrid 912.....	56.1	44.9	16.7	41.5	71.0	107.3	104.2
11 Illinois Hybrid 514.....	57.4	48.6	18.3	30.5	70.0	109.8	112.8
12 Illinois Hybrid 384.....	53.1	46.1	17.9	43.0	69.0	101.3	107.0
13 Illinois Hybrid 503.....	61.1	47.2	17.9	29.0	62.5	116.8	109.5
14 Illinois Hybrid 304.....	53.2	45.8	17.4	35.0	72.0	101.7	106.3
15 Illinois Hybrid 372.....	51.9	44.2	16.7	43.5	68.5	99.2	102.6
16 Illinois Hybrid 168.....	50.0	46.2	16.8	31.5	78.0	95.6	107.2
17 Illinois Hybrid 391.....	58.8	45.6	18.0	29.5	62.5	112.4	105.8
18 Illinois Hybrid 542.....	57.3	41.8	17.9	35.0	68.0	109.6	97.0

(Table is concluded on next page)

TABLE 12.—URBANA—SOUTH-CENTRAL ROTATION, CENTRAL ILLINOIS—Concluded

Name and rank of entry	Acre yield		Moisture in grain at harvest		Lodging resistance		Performance rating for—		General average of performance ratings
	Total	Sound	bu.	perct.	bu.	perct.	General quality of grain	Total yield	
Experimental division—entries <i>not</i> in commercial production									
19 Illinois Hybrid 164.....	50.7	45.8	16.4	28.5	76.5	96.4	perct.	106.3	77.1
20 Illinois Hybrid 369.....	57.0	44.1	18.3	36.5	58.0	109.0	102.3	76.5	
21 Illinois Hybrid 314.....	47.6	41.1	17.0	42.5	70.0	91.0	95.4	74.7	
22 Illinois Hybrid 392.....	52.6	41.2	18.1	38.5	64.0	100.6	95.6	74.7	
23 Illinois Hybrid 396.....	56.4	43.6	17.8	28.0	58.0	107.8	101.2	73.8	
24 Illinois Hybrid 512.....	52.0	44.5	18.8	20.5	71.0	99.4	103.2	73.5	
25 Illinois Hybrid 465.....	54.1	43.7	17.8	22.5	64.0	103.4	101.4	72.8	
26 Illinois Hybrid 385.....	51.9	40.0	21.0	32.5	60.5	99.2	92.8	71.3	
27 Missouri Hybrid 11.....	53.6	38.0	17.7	32.0	60.0	102.5	88.2	70.7	
28 Illinois Hybrid R4226.....	45.0	38.7	17.2	32.0	74.0	86.0	89.8	70.5	
29 Missouri Hybrid 39.....	48.2	37.1	19.9	31.0	56.5	92.2	86.1	66.5	
30 Illinois Hybrid 294.....	47.0	39.3	18.7	18.0	64.5	89.9	91.2	65.9	
31 Missouri Hybrid 8.....	47.0	32.9	19.6	38.0	55.0	89.9	76.3	64.8	
32 Illinois Hybrid 439.....	44.3	32.7	17.9	22.5	57.0	84.7	75.9	60.0	
33 Missouri Hybrid 15.....	37.6	21.9	20.5	24.0	40.5	71.9	50.8	46.8	
Average of division.....	53.4	44.2	17.9	34.0	68.0	102.1	102.5	76.7	
Average of all entries.....	52.3	43.1	17.9	33.5	67.3	....	....	75.2	

TABLE 13.—MINIER, CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Acre yield		Moisture in grain at harvest	Bushel test	Shelling percent-age	Performance rating for—			General average of performance ratings
	Total	Sound				Lodging resistance	General quality of grain	Total yield	
Regular division—entries in commercial production									
1 Funk Hybrid 214.....	80.4	73.7	b <u>u.</u>	b <u>u.</u>	b <u>perct.</u>	b <u>perct.</u>	b <u>perct.</u>	b <u>perct.</u>	94.9
2 Funk Hybrid 208.....	79.4	73.8	17.3	55.5	90.0	76.3	105.0	108.1	93.7
3 Funk Hybrid 206.....	79.0	72.2	16.6	54.5	86.3	89.8	73.0	103.7	90.5
4 Canterbury Yellow Dent.....	75.5	69.8	17.1	54.5	84.5	80.6	72.5	103.1	88.4
5 Hoosier Hybrid.....	82.8	67.3	19.1	55.5	82.5	78.8	73.8	102.3	87.0
6 Pfister Hybrid 4857.....	75.7	65.1	17.8	52.0	84.8	87.5	53.8	108.1	95.5
7 McKeighan Yellow Dent.....	70.8	64.8	17.1	57.0	86.1	88.1	61.3	98.8	85.9
8 Hi-Bred 306.....	81.0	67.0	19.4	55.0	82.4	81.6	73.0	92.4	95.0
9 Iowa Hybrid 13.....	83.3	62.2	17.9	52.5	85.4	79.1	58.0	105.7	85.3
10 Funk Hybrid 220.....	71.9	65.6	18.0	52.5	84.4	89.4	49.4	108.7	91.2
11 Sommer Yellow Dent.....	74.9	65.2	16.7	53.3	83.6	77.3	69.2	108.7	84.6
12 Stiegelmeier Yellow Dent.....	72.8	63.9	18.3	56.0	83.2	68.1	71.8	97.8	83.3
13 Stiegelmeier Sunnyfield.....	68.6	61.8	19.5	55.0	84.5	75.1	64.7	95.0	93.7
14 Original Krug.....	73.3	65.5	18.3	55.0	84.0	76.6	69.7	89.6	90.6
15 Pfister Hybrid 58.....	62.3	56.1	18.0	55.0	84.0	71.9	62.2	95.7	81.5
16 Pfister Hybrid 458.....	64.9	56.8	16.7	56.0	86.8	91.9	64.7	81.3	82.2
17 Griffin Yellow Dent.....	66.0	58.2	17.7	55.5	85.5	86.9	62.7	84.7	79.4
18 Funk 176A.....	70.5	61.7	19.4	54.0	82.1	75.8	66.3	86.2	85.3
19 Mountjoy Utility Dent.....	66.8	58.9	19.9	53.5	82.0	65.4	64.7	92.0	78.2
20 Sibley Estate Yellow Dent.....	65.7	55.6	18.5	55.0	82.0	66.3	69.2	87.2	77.3
Average of division.....	73.3	64.3	18.0	54.7	84.2	79.6	66.1	95.7	94.2
Farmers' composite.....	68.3	59.9	16.7	54.0	82.8	74.1	63.5	89.2	83.9
								87.8	78.7

(Table is concluded on next page)

TABLE 13.—MINIER, CENTRAL ILLINOIS—Concluded

Name and rank of entry	Acre yield		Moisture in grain at harvest	Shelling			Performance rating for—			General average of performance ratings
	Total	Sound		Bushel test	percent.	Lodging age	General quality of grain	Total yield	Sound yield	
Experimental division—entries <i>not</i> in commercial production										
1 Illinois Hybrid 508.....	95.3	90.7	17.0	56.1	85.1	87.5	83.3	124.4	133.0	107.1
2 Illinois Hybrid 371.....	89.3	84.0	17.0	53.5	83.9	85.0	77.5	116.6	123.2	100.6
3 Illinois Hybrid 391.....	93.7	80.4	17.4	54.5	83.4	88.0	61.0	122.3	117.9	97.3
4 Illinois Hybrid 360.....	85.7	80.2	17.3	56.0	84.5	85.0	71.3	111.9	117.6	96.5
5 Siegelmeyer Hybrid 2.....	85.5	78.7	17.3	56.5	84.2	81.3	76.3	111.6	115.4	96.2
6 Illinois Hybrid R3356.....	81.7	73.4	16.7	53.5	85.4	87.5	68.5	106.7	107.6	92.6
7 Illinois Hybrid 396.....	89.1	78.2	18.1	55.0	83.5	75.6	62.2	116.3	114.7	92.2
8 Illinois Hybrid 314.....	81.8	74.5	17.4	57.0	84.5	81.9	70.5	106.8	109.2	92.1
9 Illinois Hybrid 172.....	82.4	77.2	16.5	55.0	84.8	76.7	65.3	107.6	113.2	90.7
10 Illinois Hybrid 905.....	77.5	70.8	16.8	54.0	86.1	86.6	71.3	101.2	103.8	90.7
11 Illinois Hybrid J4211.....	76.8	69.2	17.0	56.0	82.1	82.1	72.2	100.3	101.5	89.0
12 Funk Hybrid 229.....	81.4	71.6	18.0	55.0	83.9	77.9	65.5	106.3	105.0	88.7
13 Illinois Hybrid RA.....	81.4	76.2	18.9	55.0	87.2	87.2	76.8	106.3	111.7	88.2
14 Illinois Hybrid 304.....	70.7	65.7	17.1	57.0	86.6	88.3	74.2	92.3	96.3	87.8
15 Illinois Hybrid 168.....	64.8	62.6	16.5	59.5	83.3	87.5	87.5	84.6	91.8	87.7
16 Hi-Bred 9.....	74.9	61.5	17.8	53.5	84.9	91.0	54.7	97.8	90.2	83.4
17 Illinois Hybrid 294.....	73.1	67.2	19.2	55.0	84.0	58.8	72.5	95.4	98.5	81.3
18 Morgan Hybrid MW203.....	68.0	51.5	17.5	50.5	85.8	87.3	48.3	88.8	75.5	75.0
Average of division.....	80.7	73.0	17.4	55.1	84.6	81.4	69.9	105.4	107.0	91.0
Average of all entries.....	76.6	68.2	17.7	54.9	84.3	80.3	67.8	....	....	87.0

TABLE 14.—TOLONO, CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resistance	Performance rating for—		General average of performance ratings
	Total	Sound			General quality of grain	Total yield	
Regular division—entries in commercial production							
1 Funk Hybrid 220.....	64.0	52.4	per cent.	per cent.	per cent.	per cent.	92.8
2 Funk Hybrid 206.....	62.1	50.0	17.4	58.0	68.0	116.4	128.7
3 Funk Hybrid 214.....	59.4	47.9	18.6	62.0	70.5	112.9	122.9
4 Funk Hybrid 208.....	58.4	47.9	18.3	61.0	70.0	108.0	117.7
5 Canterbury Yellow Dent.....	52.3	41.4	20.5	57.5	70.0	106.2	117.7
6 Sommer Yellow Dent.....	57.7	44.2	18.6	43.5	64.5	104.9	108.6
7 Eversole White Dent.....	54.1	41.3	18.6	55.0	66.0	98.4	101.5
8 Station Yellow Dent.....	49.9	37.2	18.6	49.0	66.0	90.7	91.4
9 Hi-Bred 306.....	56.5	36.1	17.4	56.0	47.0	102.7	88.7
10 Stiegelmeier Yellow Dent.....	49.2	36.2	18.5	45.5	66.5	89.5	88.9
11 Pfister Hybrid 4857.....	53.1	34.9	17.0	58.0	47.6	96.5	85.7
12 McKeighan Yellow Dent.....	46.0	33.9	21.4	53.5	67.0	83.6	83.3
13 Mountjoy Utility Dent.....	49.7	35.2	20.5	43.0	63.5	90.4	86.5
14 Hoosier Hybrid.....	54.9	31.2	19.4	57.0	45.5	99.8	76.7
15 Iowa Hybrid 13.....	58.2	28.1	18.3	53.0	39.5	105.8	69.0
16 Original Krug.....	46.0	32.3	19.4	40.5	52.0	83.6	79.4
17 Pfister Hybrid 58.....	44.5	23.4	18.3	62.0	47.0	80.9	57.5
18 Pfister Hybrid 584.....	35.5	23.3	19.4	67.5	57.0	64.5	57.2
19 Pfister Hybrid 458.....	38.2	23.9	18.4	53.5	52.5	69.5	58.7
Average of division.....	52.1	36.9	18.8	54.3	59.5	94.7	90.6
							74.8

(Table is concluded on next page)

TABLE 14.—TOLONO, CENTRAL ILLINOIS—Concluded

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resistance	Performance rating for—		General average of performance ratings
	Total	Sound			General quality of grain	Total yield	
Experimental division—entries not in commercial production							
1 Illinois Hybrid 391.....	bu.	bu.	per cent.	per cent.	per cent.	per cent.	per cent.
2 Illinois Hybrid 506.....	59.9	49.7	19.1	56.5	69.0	127.8	137.6
3 J. C. W. Hybrid 1.....	60.1	51.4	18.0	76.0	72.5	108.9	122.1
4 Funk Hybrid 229.....	66.6	53.3	20.3	69.0	68.5	109.3	126.3
5 Illinois Hybrid 314.....	59.6	48.5	18.8	55.5	64.0	121.1	131.0
6 Illinois Hybrid 508.....	59.7	46.7	19.2	64.3	74.8	108.4	119.2
7 Illinois Hybrid 396.....	60.7	51.5	17.8	77.0	64.5	108.5	114.7
8 Illinois Hybrid R5676.....	59.1	49.9	21.0	53.5	65.5	110.4	126.5
9 Illinois Hybrid 392.....	59.4	47.0	19.4	56.5	66.0	107.5	122.6
10 Siegelmeier Hybrid 2.....	59.5	49.6	17.0	65.0	64.0	108.0	115.5
11 Illinois Hybrid 373.....	54.6	48.0	18.1	53.5	65.0	108.2	121.9
12 Illinois Hybrid 360.....	59.4	43.0	18.1	51.5	76.0	99.3	117.9
13 Illinois Hybrid R4211.....	55.6	42.0	18.3	65.0	62.0	108.0	105.7
14 Illinois Hybrid 172.....	56.4	44.8	17.8	70.5	64.5	101.1	103.2
15 Illinois Hybrid 905.....	58.7	43.7	19.3	58.0	67.5	102.5	110.1
16 Illinois Hybrid RA.....	54.7	43.3	16.8	54.5	67.5	106.7	107.4
17 Illinois Hybrid R4226.....	51.5	43.3	19.2	39.5	69.5	99.5	106.4
18 Illinois Hybrid 384.....	51.2	38.7	17.4	56.0	69.5	93.6	95.1
19 Hi-Bred 12.....	55.7	37.3	18.6	62.5	58.5	93.1	91.6
20 Indiana Hybrid BK667TR.....	54.2	30.7	31.1	65.5	48.0	101.3	76.4
21 Morgan Hybrid MW202.....	42.3	22.4	43.7	16.8	70.5	41.5	75.4
Average of division.....	57.6	44.2	18.4	17.7	63.0	46.5	76.9
Average of all entries.....	55.0	40.7	18.6	61.1	64.0	104.7	108.6
						61.9	84.6
						....	80.0

Name and rank of entry	Acre yield		Moisture in grain at harvest		Lodging resistance		Performance rating for—		General average of performance ratings
	Total	Sound	bu.	per cent	bu.	per cent	bu.	per cent	
Regular division—entries in commercial production									
1 Funk Hybrid 214.....	69.9	60.8	17.8	75.5	73.2	106.5	112.9	92.0	
2 Funk Hybrid 206.....	70.6	61.1	17.9	71.3	71.5	108.0	114.4	91.3	
3 Funk Hybrid 208.....	68.9	60.9	17.5	73.7	71.5	105.0	113.0	90.8	
4 Funk Hybrid 220.....	68.0	59.0	17.1	67.7	68.6	105.2	112.5	88.5	
5 Canterbury Yellow Dent.....	63.9	55.6	19.8	67.7	71.9	96.9	102.0	84.5	
6 Sommer Yellow Dent.....	66.3	54.7	18.5	55.8	68.2	101.4	102.1	81.9	
7 Hi-Bred 306.....	68.8	51.6	17.7	67.6	52.5	104.2	93.5	79.5	
8 Pfister Hybrid 4857.....	64.4	50.0	17.1	73.1	54.5	97.7	90.6	79.0	
9 McKeighan Yellow Dent.....	58.4	49.4	20.4	67.6	70.0	88.0	89.2	78.7	
10 Hoosier Hybrid.....	68.9	49.3	18.6	72.3	49.7	104.0	87.7	78.4	
11 Stiegelmeyer Yellow Dent.....	61.0	50.1	19.0	60.3	65.6	92.3	91.3	77.4	
12 Iowa Hybrid 13.....	70.8	45.2	18.2	71.2	44.4	107.3	80.1	75.8	
13 Montjoy Utility Dent.....	58.3	47.1	20.2	54.7	66.4	88.8	86.5	74.1	
14 Original Krug.....	59.7	48.9	19.1	56.2	57.1	89.7	87.7	72.7	
15 Pfister Hybrid 58.....	53.4	39.8	17.5	77.0	55.9	81.1	69.9	71.0	
16 Pfister Hybrid 458.....	51.6	40.4	18.1	70.2	57.6	77.1	71.0	69.0	
Average of division.....	63.9	51.5	18.4	67.6	62.4	97.1	94.0	80.3	
Experimental division—entries <i>not</i> in commercial production									
1 Illinois Hybrid 508.....	77.5	68.7	17.4	82.3	73.9	116.5	123.9	99.2	
2 Illinois Hybrid 391.....	82.0	68.2	18.3	72.3	65.0	125.1	127.8	97.6	
3 Illinois Hybrid 314.....	70.7	61.5	18.3	73.1	72.7	107.6	114.2	91.9	
4 Stiegelmeyer Hybrid 2.....	72.5	64.2	17.7	67.4	70.7	109.9	118.7	91.7	
5 Illinois Hybrid 360.....	72.6	61.6	17.8	75.0	66.7	110.0	111.7	90.9	
6 Funk Hybrid 229.....	74.0	62.5	19.1	66.7	64.8	113.7	118.0	90.8	
7 Illinois Hybrid 396.....	74.9	64.9	19.6	64.6	63.9	113.4	120.6	90.6	
8 Illinois Hybrid 172.....	69.4	61.0	17.9	67.4	66.4	105.0	111.7	87.6	
9 Illinois Hybrid 905.....	68.1	57.3	16.8	70.6	69.4	104.0	105.6	87.4	
10 Illinois Hybrid RA.....	68.1	59.8	19.1	48.7	73.2	102.9	109.1	83.5	
Average of division.....	73.0	63.0	18.2	68.8	68.7	110.8	116.1	91.1	

TABLE 16.—ALEXANDER, CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Acre yield		Moisture in grain at harvest	Lodging resistance	Performance rating for—		General average of performance ratings
	Total	Sound			per cent.	per cent.	
Regular division—entries in commercial production							
1 Funk Hybrid 207.....	26.7	16.2	16.6	44	65	145.9	202.8
2 Iowa Hybrid 13.....	28.4	9.5	17.2	36	45	155.2	119.4
3 Funk Hybrid 208.....	21.1	10.9	16.6	39	65	115.3	135.7
4 Funk Hybrid 220.....	18.2	11.2	17.1	39	65	99.5	140.5
5 Canterbury Yellow Dent.....	13.7	7.4	17.3	43	55	74.9	92.2
6 Hi-Bred 306.....	20.2	5.4	17.3	46	30	110.4	67.4
7 McKeighan Yellow Dent.....	15.5	6.7	16.9	36	50	84.7	83.2
8 Station Yellow Dent.....	14.7	5.4	17.1	34	50	80.3	66.9
9 Mountjoy Utility Dent.....	15.2	5.3	17.4	35	35	83.1	66.6
10 Zeller Yellow Dent.....	11.7	4.8	17.2	39	20	63.9	59.4
11 Eversole White Dent.....	10.7	4.8	17.0	33	50	58.5	59.7
12 J. C. W. Hybrid 1.....	8.4	4.3	17.7	45	50	45.9	54.2
13 Sommer Yellow Dent.....	14.3	3.7	17.6	33	30	78.1	46.0
Average of division.....	16.8	7.4	17.2	38.6	46.9	92.0	91.8
Farmers' composite.....	8.2	2.3	17.4	35.0	30.0	44.8	28.4
Experimental division—entries <i>not</i> in commercial production							
1 Illinois Hybrid 172.....	27.6	11.2	16.7	48	70	150.8	140.5
2 Illinois Hybrid RA.....	23.9	12.7	16.5	32	60	130.6	158.8
3 Illinois Hybrid 524.....	20.5	10.8	17.7	45	60	112.0	134.9
4 Illinois Hybrid 396.....	21.4	10.6	17.1	38	60	116.9	132.0
5 Illinois Hybrid 384.....	22.4	10.4	17.5	39	50	122.4	130.0
6 Illinois Hybrid 391.....	22.9	7.6	17.5	41	60	125.1	95.5
7 Illinois Hybrid 373.....	21.1	9.0	16.9	32	50	115.3	112.5
8 Illinois Hybrid 508.....	15.7	9.3	16.6	52	50	85.8	115.8
9 Illinois Hybrid R5678.....	19.3	7.9	16.8	28	40	105.5	98.5
10 Hi-Bred 6.....	22.5	6.4	18.3	50	30	123.0	80.6
11 Illinois Hybrid 314.....	13.2	6.3	18.1	47	50	72.1	78.8
Average of division.....	21.0	9.3	17.2	42.9	52.7	114.5	116.2
Average of all entries.....	18.3	8.0	17.2	39.6	44.9	....	70.0

TABLE 17.—EDGEWOOD, South-Central Illinois: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

Name and rank of entry	Total acre yield*	Moisture in grain at harvest	Performance rating for—			General average of performance ratings
			Lodging resistance	General quality of grain	Total yield	
Regular division—entries in commercial production						
1 Blackhawk.....	bu.	per cent.	per cent.	per cent.	per cent.	
2 Waddell Golden Beauty.....	38.1	18.6	89.4	88	113.1	96.8
3 Champion White Pearl.....	37.3	15.0	78.1	90	110.7	92.9
4 Pride of Saline.....	30.3	23.0	93.2	90	89.9	91.0
5 Moore Yellow Dent.....	35.7	20.2	81.6	85	105.9	90.8
Average of division.....	35.1	17.7	77.0	75	104.2	85.4
	35.3	18.9	83.9	85.6	104.7	91.4
Experimental division—entries <i>not</i> in commercial production						
1 Illinois Hybrid M4211.....	41.0	16.4	93.0	90	121.7	101.6
2 Illinois Hybrid M5678.....	37.3	18.4	81.1	60	110.7	83.9
3 Illinois Hybrid J2204.....	32.9	13.0	79.1	55	97.6	77.2
4 Illinois High Yield.....	27.3	19.4	70.6	70	81.0	73.9
5 Illinois Hybrid H5678.....	31.6	18.2	66.7	55	93.8	71.8
6 Carter Hybrid 3A.....	23.7	12.7	62.6	60	70.3	64.3
Average of division.....	32.3	16.4	75.5	65	95.9	78.8
Average of all entries.....	33.7	17.5	79.3	74.4	...	84.5

*Based on yield of Champion White Pearl.

TABLE 18.—ALHAMBRA, SOUTH-CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1934

	Name and rank of entry	Acre yield	Moisture and cob in ears at harvest	Total yield
		bu.	perct.	perct.
1	Moore Yellow Dent.....	19.7	25.4	149.2
2	Station Yellow Dent.....	18.5	32.9	140.2
3	Waddell Utility Yellow Dent.....	17.8	34.6	134.8
4	St. Charles White.....	16.8	32.1	127.3
5	Midland Yellow.....	15.8	28.3	119.7
6	Waddell Golden Beauty.....	15.7	33.3	118.9
7	Pride of Saline.....	13.4	40.5	101.5
8	Mohawk.....	13.4	37.1	101.5
9	Waddell Utility White Dent.....	12.6	37.4	95.5
10	Blackhawk.....	11.1	37.5	84.1
11	J. C. W. Hybrid 1 ^a	10.4	32.5	78.8
12	Harmon White.....	10.1	37.6	76.5
13	Champion White Pearl.....	9.1	39.5	68.9
14	Johnson County White.....	7.8	43.9	59.1
15	Leaming.....	5.2	44.1	39.4
Average yield of all entries.....		13.2	35.8	

^aExperimental.



FIG. 4.—A BUSHEL OF SHELLED CORN FROM EACH OF TWO HIGH-YIELDING HYBRIDS ON A CENTRAL ILLINOIS FIELD

These two hybrids were about equal in lodging resistance (above 80) and in total yield. One, however, had 17.3 percent commercially damaged grain and the other only 2.8 percent. The former would grade "Sample" on the market and the other "No. 2."

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